

**Background for Community-Level Work on Mental Health and  
Externalizing Disorders in Adolescence:  
Reviewing the Literature on Contributing Factors**

**EXECUTIVE SUMMARY**

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Most adolescents are mentally healthy, are relatively happy and optimistic, are exploring their identity, have no major emotional problems, and act in a socially acceptable manner. Nonetheless, according to estimates based on a large community sample (Shaffer, Fisher, Dulcan, Davies, Paicentini, Schwab-Stone, Lahey, Bourdon, Jensen, Bird, Canino, & Regier, 1996), nearly 21% of youth between 9 and 17 years old have a mental or externalizing disorder. Of this 21%, 13% of youth have anxiety disorders, 6% have a mood disorder (including depression), over 10% have disruptive behavioral problems such as conduct disorder, and 2% are addicted to drugs and/or alcohol.<sup>1</sup> Considering the negative consequences that emotional, behavioral, and addictive disorders can have on adolescents' lives and their subsequent lives as adults, the present report summarizes what is known regarding the antecedents of these disorders and prevention programs that might help to alleviate the symptoms of these maladies. This paper will also examine the positive characteristics of mental health. Although there has been a relative dearth of literature in this area, there is enough research to warrant some suggestions for promoting positive mental health.

For this report, we separate mental disorders into two general categories: internalizing and externalizing disorders. Internalizing disorders, such as depression and anxiety, are expressed within the individual and are focused on a clinically problematic affective and/or emotional state. Externalizing disorders, such as conduct disorder, attention deficit hyperactivity disorder (ADHD), and alcohol and drug abuse, are expressed overtly.

There is an extensive body of research on the factors that predict mental health and illness, focusing on factors within the adolescent and within the various components of the environment (e.g., family, friends, schools, and the neighborhood). We present a selective review of the research pertaining to each layer of an adolescent's internal and external world. Specifically, we emphasize (1) studies that are rigorously implemented, random assignment experimental evaluations of interventions, in which aspects of the environment are manipulated and mental and addictive disorders are examined; and (2) studies that are longitudinal, involving the examination of aspects of the environment as predictors of mental health and illness and that use multivariate analyses to take background characteristics of the families into account. When little information exists, we include cross-sectional studies to suggest possible associations between environmental or individual factors and youth mental health. Those studies are identified and the reader should interpret such results cautiously.

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<sup>1</sup> However, the reader should pay attention to the fact that this is a community, not a nationally representative, sample. To date, there has not been a national estimate of mental disorders. Also, many youth have more than one disorder.

## Internalizing Disorders

### Stability

Little research has examined the stability of depression, anxiety or eating disorders. There is research on adults indicating that depression is stable for at least eight years (Lovidond, 1998). Anxiety disorders often have an early onset in childhood or adolescence and continue into adulthood (Albano, Chorpita, & Barlow, 1996). As for eating disorders, anorexia nervosa typically starts in adolescence between ages 14 and 18, while bulimia nervosa typically begins in late adolescence or early adulthood (Fombonne, 1995).

### Individual Differences

Several individual difference variables have been studied that are linked to future internalizing disorders. Depression, anxiety disorders, and eating disorders all appear to have a genetic component (O'Connor, McGuire, Reiss, Hetherington, & Plomin, 1998; Wilson, Heffernan, & Black, 1996; Zahn-Waxler, Klimes-Dougan, & Slattery, 2000). Internalizing disorders are more common in adolescent girls than in adolescent boys (Compas et al., 1997; Ge, Conger, & Elder, 2001; Wilson, Heffernan, & Black, 1996). Furthermore, early personality variables are key factors, although they are slightly different for each disorder. For example, self criticism predicts depression (Hoffman, Cole, Martin, Tram, & Seroczynski, 2000), early inhibited temperament predicts social anxiety (Schwartz, Snidman, & Kagan, 1999; Zahn-Waxler, Klimes-Dougan, & Slattery, 2000), and obsessional tendencies and rigidity predict eating disorders (Strober, 1980; Wilson, Heffernan, & Black, 1996). Finally, there is a great deal of overlap (comorbidity) between depression and anxiety, with no consensus yet reached on whether or not depression and anxiety are manifestations of the same underlying disorder (Hayward et al., 2000). Therefore, there is the potential that the same antecedents promote and the same programs can prevent the disorders.

### Proximal Antecedents

Considering that parents, peers, and other adults can have significant impacts on youth's social and emotional development (Bukowski, in press; Cox, in press), examining proximal antecedents (which, in this report, includes interactions with parents and peers) within the youth's ecosystem is important.

Research on proximal influences highlights the importance of familial interactions and processes in the development of internalizing disorders. The families of children with internalizing disorders are often marked by poor parenting. Specifically, family discord, low levels of support, and childrearing attitudes involving low tolerance and strict discipline are associated with depression in adolescence (Davies & Windle, 1997; Fergusson, Horwood, & Lynsky, 1994; Katainen, Raikkonen, Keskivaara, & Keltikangas-Jarvinen, 1999; McGuire, Hetherington, Reiss, & Plomin, 1996; Wagner, Cohen, & Brook, 1996). Likewise, families of anxious adolescents are often characterized by high levels of parental control and little encouragement of independence (Chorpita & Barlow, 1998; Zahn-Waxler, Klimes-Dougan, & Slattery, 2000). Finally, adolescents with eating disorders often come from families that are conflict avoidant,

overprotective, over-involved, and use poor conflict resolution strategies. The data on peer effects are less conclusive (Kog & Vandereycken, 1989; Wilson, Heffernan, & Black, 1996). Although there are findings to suggest that peers are as important as families to adolescent mental health, there is little research on the quality of peer relationships; the studies that have been done have either been cross-sectional or short-term longitudinal.

## **Externalizing Disorders**

Externalizing disorders are characterized by consistent expressions of overt deviant behaviors over an extended period of time. Such clusters of behaviors should not be confused with experimentation during the adolescent years. Periodically acting out or trying drugs or alcohol would not fall under this heading. However, persistent aggressive and other deviant acts, the inability to sit still and/or pay attention, and the abuse of drugs or alcohol would be considered indicators of externalizing disorders. Therefore, in order to determine whether it might be appropriate to institute an intervention/prevention program or service, it is first important to discover whether the behaviors are stable across time or if they dissipate with or without intervention. If they dissipate over a short time period, then it might be concluded that spending money and effort on intervention/prevention programs or services would not be an efficient use of funds.

### Stability

There has been much research on the developmental continuity of ADHD and conduct disorder/antisocial behaviors. However, the research should be read with caution because the samples used were relatively small and predominantly Caucasian American. Moreover, there is a dearth of longitudinal multivariate studies. Nevertheless, apart from experimentation with deviant behaviors, there appears to be considerable research evidence that externalizing disorders are stable over time. In fact, youth with disorders that begin early in life and persist throughout adolescence are the most at risk for continued negative outcomes. However, symptoms that are presented for the first time in adolescence may dissipate naturally by early adulthood. These conclusions are based on research conducted in various regions throughout the United States and New Zealand and that included ethnically diverse populations (Barkley, Fischer, Edelbrock, & Smallish, 1990; Biderman, Faraone, Taylor, Sienna, Williamson, & Fine, 1998; Elkins, Iacono, Doyle, & McGue, 1997; Fergusson, Lynskey, & Horwood, 1996; Hart, Lahey, Loeber, Applegate, & Frick, 1995; Loeber, Green, Keenan, & Lahey, 1995; Loeber, Wung, Keenan, Giroux, Southamer-Loeber, Van Kammen, & Maughan, 1993; Moffitt et al., 1996; Vitaro, Gendreau, Tremblay, & Oligny, 1998; Windle, 1990).

### Individual Differences

Various individual characteristics, such as gender, genetics, and personality characteristics have been found to be associated with drug use and abuse, but, surprisingly, we did not find rigorous, multivariate longitudinal research on individual differences of ADHD or conduct disorder. However, much cross-sectional research consistently finds that both specific motivations and low regulatory control are associated with greater alcohol and drug use (e.g., Shedler & Block, 1990). Researchers also have identified four motivating factors related to both alcohol and drug use: 1)

to enhance positive affect and creativity; 2) to reduce negative affect; 3) for social cohesion; and 4) because of addiction (Newcomb, Chou, Bentler, & Huba, 1988). Subsequently, having any of these motivations for use increases actual use.

Different youth profiles have also been associated with drug use (Wills, McNamara, Vaccaro, & Hirky, 1996). For instance, research suggests that *escalators* (those who became frequent users) have high life stress, nonadaptive coping strategies, deviance-prone attitudes, parental and peer substance use, low parental support, low academic competence, and low behavioral control. *Experimenters* (those who had tried but were not frequent users of drugs) and *late starters* (those who started using drugs later in their childhood/adolescence) are moderate on these factors, while *non-users* are very low on the risk factors.

The emotional restraint of adolescents has also been examined in relation to later drug use (Farrell & Danish, 1993). For instance, male adolescents who have low emotional restraint have been found to be significantly more likely to use gateway drugs (i.e., drugs taken at beginning of drug use trajectory that lead to harder drugs and drug use). One possibility for these findings is that adolescents use drugs to control their emotions artificially, as they do not control their emotions on their own. This study, along with others (e.g., Blum, Beuhring, & Rinehart, 2000), also implies that caution should be taken when generalizing antecedents across genders and ethnicities. Programs may need to gear specific activities to specific sub-groups.

### Proximal Antecedents

Both parents and peers can have profound effects on an adolescent's externalizing behaviors. Research has found that parent smoking, drug and alcohol use, parent-child relationships, and family discord are all potential predictors of later adolescent conduct disorder and drug and alcohol use and abuse (Chassin, Curran, Hussong, & Colder, 1996; DeLucia, Belz, & Chassin, 2001; Duncan, Duncan, & Hops, 1996; Fergusson, Horwood, & Lynskey, 1994; Fergusson, Woodward, & Horwood, 1998; Hill, Lowers, Locke-Wellman, & Shen, 2000; Loeber, Green, Keenan, & Lahey, 1995; Offord et al., 1992; Tremblay, Pagani-Kurtz, Masse, Vitaro, & Pihl, 1995; Pettit, Bates, Dodge, & Meece, 1999; Weissman, Warner, Wickramaratne, & Kandel, 1999). Negative peer interaction quality and having negative peer role models have also been implicated. It is possible that it is the combination of all or some of these factors that predict adolescent outcomes. Sibling use of drugs has similar associations with adolescent externalizing disorders (Capaldi, Dishion, Stoolmiller, & Yoerger, 2001; Fuligni, Eccles, Barber, & Clements, 2001).

### Distal Antecedents of Internalizing and Externalizing Disorders

Little strong evidence exists on distal factors that might affect externalizing disorders. Moreover, the research that has been conducted tends to cluster both internalizing and externalizing disorders together. The limited research base does suggest that factors at the distal level might be associated with internalizing and externalizing disorders. However, there has not been research contrasting the importance of proximal versus distal antecedents.

Neighborhood effects. The type of neighborhood in which one lives can moderate the effects of individual risk factors (Aneshensel & Sucoff, 1996). For instance, African American and Latino underclass adolescents have been found to be more likely to live in subjectively hazardous environments than others who are in middle and upper class families, or who are Caucasian American and Asian American underclass adolescents. The perception of living in a hazardous environment is subsequently related to an increase in depression, anxiety, and oppositional defiance disorder.

Additionally, one study suggests that the effect of the personality factor, impulsivity, on antisocial behavior varies by the type of neighborhood in which the child lives, with those living in high poverty neighborhoods exhibiting significantly more antisocial behaviors than those living in low poverty neighborhoods (Lynam, Caspi, Moffitt, Wikstrom, Loeber, & Novak, 2000).

Family economic stability. We found two studies on the association of economic stability to internalizing problems (Conger, Conger, Elder, Lorenz, Simons, & Whitbeck, 1993a; Conger, Conger, Elder, Lorenz, Simons, & Whitbeck, 1993b). Researchers found that the economic stability of a family has an indirect effect on adolescent well-being. Specifically, economic hardship is positively related to parental depression. Parental depression is subsequently related to marital conflict. Marital conflict and parental depression predict parenting style. Finally, parenting style is directly related to the positive or negative development of the youth, with more nurturing parents raising better-adjusted children.

Media effects. The media can include television, magazines, movies, music, and the internet. It is difficult, however, to parse out the effects of media from other distal and proximal factors. Most of the research is based on small samples and relies more on theory than on data. For instance, the relatively recent explosion of internet use among American children and youth has progressed much faster than the research surrounding its effects. One of the few studies conducted involved 73 households in their first one to two years online (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998). The researchers found that greater internet use was linked to decreased amounts of family communication, an increase in loneliness, a decrease in social circle size, and an increase in depression. However, the process among the outcomes (e.g., does loneliness lead to depression?) was not examined. It should be noted that this is one study on a small sample engaging in a specific type of internet use. Further research is necessary before more definitive conclusions can be made.

A connection has also been drawn between eating disorders and exposure to the “thin ideal” in the media. The perpetuation of a “thin ideal” has increased in American society and theorists believe that girls are socialized early in life to believe that their appearance is very important (Striegel-Moore, Silberstein, & Rodin, 1986; Wilson, Heffernan, & Black, 1996). Much of the research has been done with college populations and young adults, but one study explored the idea with a sample of 6<sup>th</sup> graders, 9<sup>th</sup> graders, and 12<sup>th</sup> graders (Harrison, 2000). Preferences for thin-ideal magazines predicted eating disorders, but TV exposure did not. Even if connections can tentatively be made between one kind of thin-ideal media and eating disorders from this study, results should be viewed with caution due to its correlational design. It is hard to determine the direction of the relationship—does media exposure lead to eating disorders, or do

those with eating disorders learn to prefer and choose thin-ideal media as a result of their disorders?

## **Prevention and Intervention Strategies**

Before discussing prevention programs, it is important to note that few of these evaluations have assessed the implementation of the programs. In other words, the fidelity of the program implementation has generally not been part of the analyses regarding whether the program works (Domitrovich & Greenberg, 2000). If the results are produced by programs that were not implemented properly, then program designers and practitioners will not know whether the program described is really the program that was given to the participants nor will they know whether specific portions of the program were ineffective while others were effective. Therefore, readers should only be cautiously optimistic of effective programs that do not discuss the implementation of the program (or cautiously pessimistic of programs that were found not to be effective).

There has been a relative lack of evaluation research on prevention and intervention strategies for internalizing and externalizing disorders in adolescents, compared with research on adults. However, there is evidence that primary prevention programs that target either the environment or the individual are effective in reducing the occurrence of later mental health and externalizing problems for youth (Durlak & Wells, 1997; Weisz, Weiss, Han, Granger, & Morton, 1995).

More specifically, there are a number of programs that have been experimentally evaluated and which appear to prevent or treat internalizing and externalizing disorders. For depression and anxiety, psychotherapy, pharmacotherapy (specifically serotonin-specific reuptake inhibitors), making a youth's environment more supportive, and changing a youth's environment from high-risk to low-risk have been found to be effective treatments (e.g., Barrett, Dadds & Rapee, 1996; Brent, Holder, Kolko, Birmaher, Baugher, Roth, Iyengar & Johnson, 1997; Del Conte & Kling, 2001; Eggert, Thompson, Herting, & Nicholas, 1995; Eggert, Thompson, Herting, Nicholas, Dickers, 1994; Reynolds & Coats, 1986; Spence, Donovan & Brechman-Toussaint, 2000; Walkup, Labellarte, Riddle, et al., 2001). Evaluations of treatments of eating disorders have produced inconclusive results (Binford & Fulkerson, 2000; Neumark-Sztainer, Butler & Palti, 1995). For ADHD, a combination of medication and psychotherapy appears to be more effective than the use of a single intervention method and multi-component strategies that intervene at the proximal and distal levels are best at preventing externalizing disorders (e.g., Barker & O'Neil, 1999; Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995; Botvin, Epstein, Baker, Diaz, & Williams, 1997; Chou, Montgomery, Pentz, Rohrbach Anderson, Johnson, Flay, & MacKinnon, 1998; Del Conte & Kling, 2001; Eggert, Thompson, Herting, & Nicholas, 1995; Eggert, Thompson, Herting, Nicholas, Dickers, 1994; Harrell, Cavanagh, & Sridharan, 1999; Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999; Keller et al., 2001; Loscuito, Rajala, Townsend, & Taylor, 1996; MTA Cooperative Group, 1999; Schinke, Orlandi, & Cole, 1992; The Research Unit on Pediatric Psychopharmacology Anxiety Study Group, 2001; Tierney, Grossman, & Resch, 1995; Weissberg, Caplan, & Bennetto, 1988). Overall, the evaluations tend to support multi-component interventions and preventions as the most effective strategy, even when medication is a component. This makes sense since programs that intervene at the individual, proximal, and even distal levels focus on more antecedents than a single method intervention.

However, most of the evaluations do not parse out the effects of each individual component of programs. Therefore, it is possible that only one or two components are necessary for success. In fact, it has been suggested that the most effective form of intervention (not prevention) takes place on the proximal level (Blount, Bunke & Zaff, 2000). More research is needed before definitive conclusions can be made about the specific content of the programs.

## **Positive Mental Health**

Estimates of positive mental health among adolescents are virtually non-existent. Available data suggest that most, perhaps four in five, youth do not have a mental or addictive disorder, but we do not know how many are optimistic, happy, and exploring their identities. Although it is important to prevent depression, anxiety and other mental disorders, being free of problems does not mean that youth are prepared for life (Pittman & Cahill, 1994). Given the dearth of knowledge about this component of adolescent mental health, more information is obviously needed. Nevertheless, there is some research on positive components of adolescent mental health that can suggest promotion strategies for optimism, self-concept, and identity. However, because there is a scarcity of strong research, the primary focus of this section is on theory with a brief discussion of antecedents of optimism, self-concept and identity.

### Theoretical Background

The construct of optimism is the expectation that good things will happen. Optimists explain bad events as having external, unstable, specific causes, while pessimists explain them as having internal, stable, global causes. Thus, if something bad happens to an optimist, she will tend not to blame herself and will see the situation as alterable. If something bad happens to a pessimist, he will tend to blame himself and believe there is nothing he can do to change the situation. This theory of optimism is related to Seligman's theory of explanatory style—how a person explains bad events to himself or herself. According to Seligman, explanatory style solidifies at age 8 and stays stable unless external events cause it to change (Peterson & Seligman, 2000). Seligman proposes that three influences in children's lives contribute to the development of optimism or pessimism: (1) the way parents talk about causal analyses of events; (2) the criticism children hear when they fail—the more pervasive and continuous, the more likely the child will develop into a pessimist; (3) the occurrence of early losses and traumas (Puskar et al., 1999). Optimists are also better copers, and thus have more positive resolutions to problems, than pessimists.

Quite a few studies of optimism have been conducted among various groups of adults, including college undergraduates, and they demonstrate that optimism is associated with positive outcomes. However, research involving adolescents is limited. Two correlational studies found that optimistic adolescents are less likely to take drugs and less likely to be depressed (Carvajal et al., 1998; Puskar et al., 1999). The conclusions that can be drawn from the studies are limited, however, because the direction of the results is not clear.

Self-concept has been defined as the sum of an individual's beliefs about their own attributes, such as their personality traits, cognitive schemas, and their social roles and relationships (Franzoi, 1996). The structure of self-concept has been under debate about whether there is a general self-concept or numerous specific self-concepts (e.g., math self-concept, athletic self-

concept). Research findings point to the multidimensionality of self-concept, with specific self-concepts predicting area-specific outcomes (e.g., math self-concept predicting math achievement; Marsh & Yeung, 1998b), but a general self-concept may predict general positive outcomes (Marsh, Craven, & Debus, 1999).

For identity, theories deal with a commitment to a sense of self and a commitment to the values and beliefs of a social group (Waterman, 1985). By first exploring various life-course options and subsequently achieving an identity, an adolescent can achieve a feeling of self-worth and have a relatively focused direction in life.

### Individual, Proximal and Distal Influences

Compared to mental disorders, there is a relative dearth of empirical research on the antecedents of positive mental health. Two correlational studies of adolescents find optimism to be associated with using adaptive coping strategies and being more emotionally calm. However, there is no research to suggest how to promote optimism. Self-concept, both as a general construct and as a collection of specific types, may predict global and specific achievements (e.g., academic self-concept is associated with academic achievement), but, again, little is known about how to promote self-concept. Although still lacking rigorous quantitative research, identity is probably the most studied positive construct, in particular regarding what predicts identity exploration and achievement. Parents and peers both socialize the child, which leads to an exploration of the environment and where the self fits into the environment (Demo & Hughes, 1990; Hart, Atkins, & Ford, 1999; King, Elder, & Whitbeck, 1997; Meeus & Dekovic, 1995; Stevenson, 1995; Youniss, McLellan, Su, & Yates, 1999). Distal factors such as language spoken in the community and the social construction of group membership may help to determine an adolescent's eventual identity commitment (Arroyo & Zigler, 1995; Forbes, 1992; Gimenez, 1992; Hurtado, Gurin, & Peng, 1994).

Obviously, though, much more research on positive mental health is needed before recommendations for program implementation can be made. Also, research on adolescents has largely ignored other potentially important positive concepts such as happiness, though a national network of psychologists is working on a taxonomy of positive psychological attributes<sup>2</sup>. The attributes are generally focused on adults, but this may at least be an important next step.

### **Summary/Conclusions**

Individual, family, peer, neighborhood, and media level variables have been found to predict both internalizing and externalizing problems. With this in mind, programs should be aware that:

- *Multi-component interventions appear to be the most effective for preventing and intervening in externalizing disorders.* Experimental studies have found that a combination of medication and psychotherapy is beneficial for ADHD, and familial,

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<sup>2</sup> See [www.positivepsychology.org](http://www.positivepsychology.org) for information about this endeavor.

school, and community strategies can affect other externalizing problems.

- *Psychotherapy, pharmacotherapy and community-level strategies appear to be effective in reducing internalizing disorders.* Experimental evaluations of psychotherapy and pharmacotherapy (specifically SSRI's) have found that cognitive-behavioral approaches can reduce symptoms of internalizing disorders. Changing a youth's environment from a high-risk to a lower-risk neighborhood is also effective in reducing depression and anxiety.
- *Research suggests that starting prevention programs as early as possible would be an important approach to preventing mental disorders and externalizing problems in adolescence.* Considering the developmental trajectory of most mental disorders, this would seem to be most beneficial. The Child Trends report on school readiness outlines several programs that seek to prevent mental health problems in early childhood (Halle, Zaff, Calkins, & Margie, 2001).
- *Implementing programs can be difficult, but programs that are not implemented correctly will have a lesser chance of succeeding in their missions.*
- *Research into positive mental health is particularly sparse for adolescents.* Therefore, more research is needed before more specific recommendations can be made regarding how to promote these attributes. Research that follows children and adolescents over time is needed. Studies should include multiple mental health constructs, both positive and negative, and an array of predictive variables assessing individual, family, school and community factors.
- *More experimental evaluations of treatments and preventions are needed.* There is little evidence about how properly to treat eating disorders and little is known about the interaction of different levels of the environment on youth internalizing disorders. Therefore, program developers need more conclusive information in order to create the most effective programs for all youth.